Montana Fish, Wildlife & Parks

DECISION NOTICE AND
FINAL ENVIRONMENTAL ASSESSMENT
LAKE CREEK AND CRATER LAKE WESTSLOPE CUTTHROAT TROUT RESTORATION

March 19, 2010

Project Proposal and Justification:

Montana Fish, Wildlife & Parks (FWP) proposes construction of a fish barrier on Crater Lake and removal of hybrid trout from Crater Lake and upstream Lake Creek (Smith River Drainage). After removal of hybrid trout, FWP propose to restore Lake Creek and Crater Lake to a native westslope cutthroat trout (WCT) fishery. Hybrid trout would be removed from upstream of the constructed fish barrier using Environmental Protection Agency (EPA) registered pesticides containing rotenone. After removal of hybridized trout, native WCT would be transferred to Lake Creek from one of the remaining non-hybridized populations in the Smith River Drainage.

Non hybridized westslope cutthroat trout occupy about 8% of their historical range in the western United States and less than 3% of their historical range in northcentral Montana within the Missouri River Drainage. The Smith River Drainage in Montana currently supports six populations of non-hybridized WCT in a total of less than 16 miles of stream (less than 3% of historical habitat). Primary threats to WCT include competition and hybridization with non-native rainbow trout and competition with brook trout.

This project is intended to restore a viable population of WCT to approximately 1.50 miles of Lake Creek/Crater Lake. If implemented, this project would create a new protected WCT population and replicate a population from a separate drainage. Projects which restore WCT to their historical habitat will help prevent future listing under the Endangered Species Act and potential imposition of federal regulatory restrictions. This project will also provide a unique opportunity for anglers to fish for native trout in an accessible area of Lewis and Clark National Forest.

Environmental and Social Impacts of Project:

In 2000, a feasibility study was prepared for construction of a fish barrier near the mouth of Crater Lake on State Land. Since 2000, barrier design has changed several times to minimize cost and reduce impacts to the relatively pristine and unique ecology of the area. Funding was obtained from Future Fisheries (FWP)

and the State Wildlife Grants Program for design and construction of the barrier (construction is slated for the summer of 2010 or 2011). The Environmental Assessment for this proposed action specified placement of concrete blocks as the preferred construction technique. Because of problems with access to the site, modification of construction techniques and materials may be necessary. Construction of the fish barrier would likely involve either placement of precast concrete blocks, construction of an earthen barrier, or construction of a gabion barrier. All of the potential structure types would have similar dimensions and footprints on the landscape. Impacts to natural resources during construction would be similar for all potential barrier types. Existing roads would be used where possible. Access to the project site would either be from the south (private roads and state land) or by tying in with existing USFS roads to the north. Installation of the barrier walls would raise the current level of Crater Lake a small amount (less than two feet). The current water right of 30 acre-feet is for stock use with a priority date of April 15, 1900. The current reservoir level is maintained by a disused beaver dam. Historically, water levels were maintained with a wood crib structure (presently non-functional) just downstream of the beaver dam. During summer, Crater Lake is approximately two feet deep and 1.5 acres in surface area (volume of approximately 4.5 acre-feet). Raising the level of Crater Lake approximately two feet would increase its volume to 9 acre-feet. This increase in surface area and volume is within the historic water right and should have no impact on downstream waters users. In addition, the fish barrier would be designed such that water levels could be dropped to current lake levels if deemed necessary.

Rotenone is a naturally occurring substance derived from the roots of several tropical and sub-tropical plants in the bean family. All piscicides kill through biochemical processes at the cellular level which make it impossible for the fish to use oxygen absorbed in the blood and needed in the release of energy during cellular respiration. Rotenone naturally degrades within 1- 8 weeks through hydrolysis and exposure to sunlight and would likely degrade in less than two weeks in this application. Lake Creek is typically dry downstream of the proposed barrier site. If Lake Creek is wetted downstream of the barrier during treatment, rotenone will be neutralized with potassium permanganate. FWP expects the impacts to non target invertebrates within the project area to be minimal with ample source areas for re-colonization of gill breathing invertebrates lost during the treatment. FWP also expects minimal impacts to amphibians and reptiles as a result of this project by implementing the project when larval life stages are less likely to be present in the area. FWP expects this project to have little or no adverse effect on mammals or birds that use the area. Ample research has shown that rotenone is not toxic to mammals and birds at the fish killing concentrations that will be used for this project. This project is also not likely to cause displacement of local populations of birds or mammals; project personnel activity on Lake Creek/Crater Lake during the construction project and during piscicide treatment will briefly be more intense than existing recreational use (approximately two weeks during construction and one week during piscicide treatment). The risk that rotenone will enter and be mobile in groundwater is minimal. Tests have shown that rotenone does not transport through sediments. Although there are no domestic wells located within the project area, water users downstream near Lake Creek were notified of this project. FWP will follow the

manufacturer's label recommendations that advise using sentinel fish to ensure the product has adequately degraded prior to re-stocking of cutthroat trout or cessation of potassium permanganate detoxification. Risks to applicators are substantially greater than risks to the general public because of the necessity of handling the compounds at full strength. Measures to reduce risks to applicators include training in the proper handling of piscicides, and the use of safety equipment listed on the product labels such as respirators, goggles, and gloves. At least one, and most likely several, Montana Department of Agriculture certified pesticide applicator(s) would supervise and administer the project. Rotenone and potassium permanganate would be transported, handled, applied, and stored according to the label specifications to reduce the probability of human exposure or spill. Health risk to project personnel will be minimized through the use of proper planning, preparation, and the use of personal protective gear.

Public Involvement:

In compliance with the Montana Environmental Policy Act, an Environmental Assessment was prepared and circulated for public comment on June 2, 2009. A scoping letter, which included a project summary and area map, was mailed to local landowners, conservation groups, non-governmental, and government organizations. Copies of the EA were made available at the State Library in Helena, the FWP Region 4 Headquarters in Great Falls, and the FWP internet web site. No comments were received during the comment period.

Decision:

Based on the Environmental Assessment, public comment, and the current high risk of extinction of genetically pure WCT in the Smith River drainage, it is my decision to proceed with Alternative 2, the proposed action. Alternative 2 involves construction of a fish barrier at the mouth of Crater Lake, removal of upstream existing fish populations of non-native hybrid trout, and re-establishment of a pure strain population of WCT. The Draft Environmental Assessment, together with this decision notice, will serve as the final document for this proposal. This alternative provides the best opportunity to benefit the conservation and restoration of WCT, helps relieve ESA listing pressure and also serves to illustrate the State's commitment to perpetuating native fish species. This project will help preserve WCT in the Smith River drainage by replicating one of the remaining populations of WCT and expanding the overall range of WCT by an additional 1.5 miles. I find there to be no significant impact on the human or physical environment associated with this project, except to help ensure the long-term persistence of pure, locally adapted WCT in the Smith River drainage. Therefore I conclude the Environmental Assessment is the appropriate level of analysis, and that an Environmental Impact Statement is not required.

Date: 3/19/2010

Gary Bertellotti
Region 4 Supervisor
Great Falls, Montana